

[54] MODIFYING A GRAPHICS DISPLAY IMAGE

[76] Inventors: Kazuaki Iwamura, Hitachi  
Koyasudai Apt. D305, 2-32,  
Koyasu-cho, Hachioji-shi, Tokyo  
192; Junichi Nakahata, 4-37,  
Nakamaru-cho 2-chome, Hitachi-shi,  
Ibaraki 316; Mitsuru Fujii, Ebina-ryo  
408, 780-1, Nakano, Ebina-shi,  
Kanagawa 243-04, all of Japan

[21] Appl. No.: 661,331

[22] Filed: Feb. 27, 1991

[30] Foreign Application Priority Data

Feb. 28, 1990 [JP] Japan ..... 2-48563

[51] Int. Cl.<sup>5</sup> ..... G09G 5/08

[52] U.S. Cl. .... 345/145; 345/115

[58] Field of Search ..... 340/701, 703, 709, 721,  
340/723, 724, 726, 727, 747, 712; 395/133, 134,  
135, 136, 137, 138, 139, 146, 151, 155, 157;  
382/44, 47; 364/488, 489, 490, 491

[56] References Cited

U.S. PATENT DOCUMENTS

4,601,021 7/1986 Paul et al. .... 340/721 X  
4,627,015 12/1986 Stephens ..... 340/724  
4,656,603 4/1987 Dunn ..... 340/721  
4,686,522 8/1987 Hernandez et al. .... 340/723  
4,694,286 9/1987 Bergstedt ..... 340/724

FOREIGN PATENT DOCUMENTS

57-134738 8/1982 Japan .  
58-3056 1/1983 Japan .  
61-269194 11/1986 Japan .  
62-60067 3/1987 Japan .  
63-108430 5/1988 Japan .

Primary Examiner—Jeffery Brier

Attorney, Agent, or Firm—Antonelli, Terry, Stout & Kraus

[57]

ABSTRACT

A graphics display image is displayed on a display, the graphics display image being formed by a plurality of graphics display image components, at least some of which have to be edited. The graphics display image components may be generated from data obtained e.g. from optical reading of a hard-copy of a map, circuit diagram, or design drawing by a suitable optical reader. The graphics display image components which are to be edited are displayed with a different visual appearance from any components which do not have to be edited, e.g. by highlighting the components to be edited. As the editing of each components is completed, its visual appearance is changed, e.g. the highlighting cancelled, so the operator has an immediate visual indication of the components which have not yet been edited. In this way, complete editing can be ensured. Different editing operations are possible including creating a cursor corresponding to the component to be edited, adjusting that cursor to correspond to the location, size and orientation of the component to be edited, and replacing the component with the cursor image.

20 Claims, 24 Drawing Sheets

